



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,503	06/29/2001	Lawrence J. Ronk	TI-30890	9240

23494 7590 02/24/2005

TEXAS INSTRUMENTS INCORPORATED
P O BOX 655474, M/S 3999
DALLAS, TX 75265

EXAMINER

PATEL, KANJIBHAI B

ART UNIT PAPER NUMBER

2625

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/896,503

Applicant(s)

RONK ET AL.

Examiner

Kanji Patel

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/8/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Amendment

1. Applicant's amendment filed on 10/8/04 has been entered.

Formal drawings filed on 10/8/04 have been approved by the examiner.

Response to Arguments

2. Applicant's arguments, see page 4, filed 10/8/04, with respect to the rejection(s) of claim(s) 1-4 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sacki (US 5,969,772).

Also the indicated allowability of claims 5-7 are withdrawn in view of the newly discovered reference to Smith (US 6,694,311 B1). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Sacki (US 5,969,772).

For claim 1, Sacki discloses a method for video object feature data generation (figures 1-2), comprising:

(a) extracting a first set of features (column 2, lines 8-9; column 3, lines 23-54; step 33 in figure 1 detects a set of key frames 1 and 2 providing a set of features) from a moving object (see column 2, lines 17-22) detected in a sequence of images;

(b) extracting a sequence of grid blocks (column 2, lines 9-11; block divide 51 in figure 2 provides grid blocks for detection of motion vector of the moving object) corresponding to motion of said object in said sequence of images;

(c) storing said first set of features and said sequence of grid blocks (key memory 35 and motion vector memory 43 and region memory 39 in figure 1 provides a storage).

For claim 2, Sacki discloses the method wherein step (a) includes extracting features in every image in said sequence containing said object (step ST7 in figure 4; step S25 in figure 6);

For claim 3, Sacki discloses the method further comprising: extracting features and associating said grid-block extracted features with said grid block sequence images (figure 4).

For claim 4, Sacki discloses the method wherein said first set of extracted features includes a color histogram (57 in figure 2; column 3, lines 26-35).

Claims 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith (US 6,694,311 B1).

For claim 5, Smith discloses a method of searching for a video object (figures 1-2), comprising:

- (a) providing a database of feature vectors of video objects (106 and 210 in figure 1-2);
- (b) providing a target feature vector (216 provides a target feature vector);
- (c) comparing said target feature vector to each feature vector of said database (block 224);
- (d) ranking (226) said feature vectors of said database according to the results of step (c) ; and
- (e) finding video objects by an association of video objects with said feature vectors of said database together with the results of step (d) 228).

For claim 6, Smith discloses the method wherein said feature vectors of said database include both path-dependent and path-independent features extracted from video objects moving in sequences of images (207).

Allowable Subject Matter

4. **Claim 7** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art on record fails to teach or suggest, alone or in combination for path-dependent features for a video object include a sequence of grid blocks traversed by said video object together with averages of features extracted from said video object when said video object was located in a corresponding grid block.

Other prior art cited

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Moghaddam et al. (US 6,584,221 B1) disclose a method for image retrieval with multiple regions of interest.

Ferrell et al. (US 6,751,343 B1) disclose a method for indexing and retrieving manufacturing specific digital imagery based on image content.

Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (703) 305-4011. The examiner can normally be reached on Monday to Thursday from 8:00 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kanji Patel
Art Unit 2625
2/22/05


KANJIBHAI PATEL
PRIMARY EXAMINER